

Aedes alpinus Dyar & Knab, Proc. Ent. Soc. Wash., xi, 32, 1909.

Aedes alpinus Howard, Dyar & Knab, Mosq. No. & Cent. Am. & W. I., iii, 368, 1915.

Culex nigripes Henriksen & Lundbeck (in part not Zetterstedt), Meddelelser om Groenland, xxii, 595, 1917.

THE SPECIES OF CHOEROPORPA, A SUBGENUS OF CULEX

(Diptera, Culicidæ)

By HARRISON G. DYAR

Mrs. J. Bonne-Wepster left with me her more difficult slides of *Choeroporpa*, which I have gone over with the following result :

The group seems to be well represented in Surinam, much more abundantly than in Panama, according to the collections which we have received from there. It extends also throughout the Tropics and into the warmer temperate regions both in North and South America.

Culex (*Choeroporpa*) *taeniopus* Dyar & Knab.

Culex taeniopus Dyar & Knab, Journ. N. Y. Ent. Soc., xv, 100, 1907.

Culex taeniopus Howard, Dyar & Knab, Mosq. N. & Cent. Am. & W. I., iii, 248, 1915.

Culex taeniopus Dyar, Ins. Ins. Mens., vi, 111, 1918.

This species proves to be widely spread. Described from Nicaragua, found in Panama, and Mrs. Bonne-Wepster has bred it in Surinam and secured a male, showing the species to belong to *Choeroporpa*. Full description of the structures will appear elsewhere.

Culex (*Choeroporpa*) *anips* Dyar.

Culex anips Dyar, Ins. Ins. Mens., iv, 48, 1916.

Culex (*Melanoconion*) *anips* Dyar & Knab, Ins. Ins. Mens., v, 180, 1917.

Culex (*Choeroporpa*) *anips* Dyar, Ins. Ins. Mens., vi, 104, 1918.

The clasp-filament is thickly snout-shaped, with a crest of rather long hairs on top; the tip curves up in a sharp point, the

spine being slender and not appendiculate. The outer division of the lobe of side piece has two slender arms, the outer one of which bears a large leaf; the inner arm has the short filament apical, the long one subapical; middle filament at base of inner arm; no others; a seta on the stem below the outer arm. Second uncal plate furcate, one limb horn-like; no third spine; but on the slender first plate, from which the basal hooks arise, is a stout spine about the middle. Basal lobes very small, irregularly triangular.

From southern California.

Culex (Choeroporpa) erraticus Dyar & Knab.

Melanoconion atratus Dyar (not Theobald), Journ. N. Y. Ent. Soc., xiii, 26, 1905.

Mochlostyrax erraticus Dyar & Knab, Journ. N. Y. Ent. Soc., xiv, 223, 1906.

Culex abominator Dyar & Knab, Smiths. Misc. Colls., quart. iss., lii, 257, 1909.

Culex abominator Thibault, Proc. Ent. Soc. Wash., xii, 20, 1910.

Culex abominator Coad, Can. Ent. xlv, 265, 1913.

Culex abominator Howard, Dyar & Knab, Mosq. N. & Cent. Am. & W. I., iii, 378, 1915.

Culex erraticus Howard, Dyar & Knab, Mosq. N. & Cent. Am. & W. I., iii, 382, 1915.

Culex (Melanoconion) erraticus Dyar & Knab, Ins. Ins. Mens., v., 179, 1917.

Culex (Choeroporpa) erraticus Dyar, Ins. Ins. Mens., vi, 104, 1918.

The clasp-filament is thick, ending in a stout horn, the spine strong and slender; on the outer side before tip is a horn composed of consolidated spines, followed by a hairy area. The outer division of the lobe of the side-piece has two short arms, the outer bearing a very large leaf, with a small accompanying seta; inner arm with the small filament apical, the large one close to it, very stout and expanded by a lateral membrane; middle filament very stout. Inner division of lobe of side-piece with the inner arm reduced, bearing only a slender filament. Second uncal plate small, furcate, one arm horn-like, the other truncate; no third spine. First plate small, without

spine. No basal hooks. Basal appendages small, but with many hairs.

United States, Mississippi Valley region.

Culex (Choeroporpa) peccator Dyar & Knab.

Culex peccator Dyar & Knab, Smith. Misc. Colls., quart. iss., lii, 256, 1909.

Culex incriminator Dyar & Knab, Smith. Misc. Colls., quart. iss., lii, 257, 1909.

Culex peccator Thibault, Proc. Ent. Soc. Wash., xii, 20, 1910.

Culex peccator Howard, Dyar & Knab, Mosq. N. & Cent. Am. & W. I., iii, 318, 1915.

Culex incriminator Howard, Dyar & Knab, Mosq. N. & Cent. Am. & W. I., iii, 409, 1915.

Culex (Melanoconion) peccator Dyar & Knab, Ins. Ins. Mens., v, 179, 1917.

Culex (Choeroporpa) peccator Dyar, Ins. Ins. Mens., vi, 104, 1918.

The clasp-filament is thick, ending in a stout horn, the spine slender and weak; on the outer side before tip is a separate tuft of setæ, not consolidated into a spine. Outer division of lobe of side-piece with a very large leaf on the outer limb, preceded by a slender filament on a little pedicel of its own; middle filament and the two of the inner limb all approximated, the large one hooked but not expanded. Second uncal plate furcate, one limb horn-like; no third spine. First plate slender, reaching to the lower limb of second plate, with a minute angle near the middle, but no horn. Inner division of lobe of side-piece with the inner arm reduced.

United States, Gulf and South Atlantic regions.

Culex (Choeroporpa) terebor, new species.

Clasp-filament very narrow, the tip snout-like, the spine appendiculate; crest-hairs very short. Outer division of lobe of side-piece with a slender inner arm; a long and a short filament from its tip, the long one hooked; middle filament stout but not very long; outer filaments about three, closely grouped on the side of the lobe. Inner division with the two limbs well separated, the inner one short, but not reduced, each bearing a long curved filament with expanded pointed tip. Second uncal plate shallowly furcate, one limb free, the other extended in a

triangular membrane, which folds across the plate and forms a retrose angle on the side; stem slender, no third projection. First uncal plate triangularly widened, reaching the fork of the second plate and bearing a sharp horn on the outer side about the middle. Basal hooks rather long. Basal appendages moderate, with many hairs.

Type, male, No. 22733, U. S. Nat. Mus.; Surinam, without further data, "two larvæ found in a pool in a stream-bed" (J. Bonne-Wepster), sent under No. BB232, July 20, 1917. The specimen from which the mount of the genitalia was made has been mislaid. Mrs. Bonne-Wepster identified it with *Culex elevator* D. & K. at the time, which it must closely resemble.

Culex (Choeroporpa) ybarmis, new species.

Clasp-filament rather stout, the tip somewhat horn-like, spine appendiculate; dorsal pile short and scant. Outer division of lobe of side-piece slender, curving a little toward apex; a long filament inserted near the base on the inner side; a slender filament subapically, also on the inner side; tip with three short triangularly expanded filaments, forming small leaves. Inner division of lobe slender, columnar, bearing two long filaments with twisted expanded tips, the inner one inserted a little basad of the other but not separated. Second uncal plate furcate, both limbs rather horn-like, broadly emarginate; a sharp double angle near middle of first plate is probably the tip of the fourth plate and not a point on the stem of the first plate. With only the single mount it is difficult to be certain. Basal hooks short, broad, scarcely recurved. Basal appendages large, elliptical, setose, contiguous.

Type, male, No. 22734, U. S. Nat. Mus.; "ground-pool near Paramaribo," Surinam (J. Bonne-Wepster). The adult has the mesonotum entirely dark brown, clothed with small spinose scales. Head with mostly oval flat white scales and many erect forked black ones. Palpi exceeding the proboscis, pointed, black. Abdomen with very narrow segmental white bands, the venter black and white banded. Legs black, without knee-spots, the femora whitish beneath.

The larva has the head broad; antennæ with notch and tuft at the outer third, pale, narrowly blackish at base and on the inner part of the segment beyond the notch. Head-hairs both single, the upper short, the lower long. Air-tube very long and slender, flared a little at the base and expanded at apex, the pecten of long spines reaching nearly one-third the length of the tube. Hair-tufts lost, but six insertions are visible, indicating three pairs, all beyond the middle and approximating the ventral line and dislocated, so as to appear as six tufts in profile. Lateral comb of the eighth segment a patch of rather large sharp spines.

Culex (Choeroporpa) alcocci Bonne-Wepster & Bonne.

Culex (Choeroporpa) alcocci Bonne-Wepster & Bonne, Ins. Ins. Mens., vii, 171, 1919.

Clasp-filament thick, the tip obtuse, scarcely snout-like, more as in *Mochlostyrax*, the spine appendiculate. Outer division of the lobe of the side-piece slender, columnar, a long filament arising about the middle on the inner side; a large expanded leaf on the tip on the inner side, close to three blade-shaped filaments, which arise a little on the outer aspect of the lobe. Inner division of lobe of side-piece rather long, one filament arising at apex and the inner one close to base without separate pedicel. Second plate of unci furcate, deeply emarginate, one limb horn-like, the other with traces of denticulations; a rounded lappet at the base of the fork, but no third spine.

From Surinam.

Culex (Choeroporpa) conspirator Dyar & Knab.

Culex conspirator Dyar & Knab, Journ. N. Y. Ent. Soc., xiv, 207, 1906.

Culex conspirator Busck, Smiths. Misc. Colls., quart. iss., lii, 68, 1908.

Culex conspirator Howard, Dyar & Knab, Mosq. No. & Cent. Am. & W. I., iii, 410, 1915.

Culex (Choeroporpa) conspirator Dyar, Ins. Ins. Mens., vi, 105, 1918.

Clasp-filament with the tip narrowly snout-like, the spine appendiculate. Outer division of lobe of side-piece with an

oval, pointed delicate ribbed leaf arising from an insertion about the middle of the shaft rather on the inner side; an inner slender arm, which bears a long and a short filament at tip; middle filament between these and the outer group of three flattened and bent filaments, which arise close together. Second uncal plate furcate, one limb horn-like. First plate broadly triangular. Basal hooks long. Basal appendages large, ovate, contiguous, with many setæ. Inner division of lobe of side-piece with two arms, the inner short.

Described from the Mexican type. Panama specimens agree. The second uncal plate has one limb shorter than the other, both pointed.

Culex (Choeroporpa) nicceriensis Bonne-Wepster & Bonne.

Culex (Choeroporpa) nicceriensis Bonne-Wepster & Bonne, Ins. Ins. Mens., vii, 174, 1919.

No slide of this is before me.

Culex (Choeroporpa) saramaccensis Bonne-Wepster & Bonne.

Culex (Choeroporpa) saramaccensis Bonne-Wepster & Bonne, Ins. Ins. Mens., vii, 172, 1919.

No slide of this is before me, the cotypes left in the National Museum being both females.

Culex (Choeroporpa) chrysonotum Dyar & Knab.

Culex chrysonotum Dyar & Knab, Proc. U. S. Nat. Mus., xxxv, 57, 1908.

Culex chrysonotum, Howard, Dyar & Knab, Mosq. No. & Cent. Am. & W. I., iii, 310, 1915.

Culex (Choeroporpa) chrysonotum Dyar, Ins. Ins. Mens., vi, 105, 1918.

Outer portion of clasp-filament rather narrowly snout-like, normal, the spine appendiculate. Outer division of lobe of side-piece slenderly columnar, with a slender inner limb, bearing a long and a short filament at tip, the long one somewhat widened and blade-like; middle filament contiguous to the three on the outer aspect, all curved and somewhat broadened and blade-like; occasionally the outer one appears ribbon-like.

Inner division of lobe of side-piece with a long outer and short inner arm, each bearing a long filament with expanded pointed tip. Second uncal plate furcate rather shallowly, one limb horn-like, the other rounded; a curved horn well below the middle of the stem. Basal hooks recurved, much broadened, thin above. Basal appendages rather large, rounded, oblique, setose, distinctly separated.

Described from the Panama type. A specimen from Surinam agrees, showing that this species is more widespread than usual in the subgenus. It is possible that *chrysothorax* Peryassú (1908) and *chrysothorax* Newstead and Thomas (1910) are the same. These were described from Brazil and Peru, but are not known to me in nature.

Culex (Choeroporpa) elevator Dyar & Knab.

Culex elevator Dyar & Knab, Journ. N. Y. Ent. Soc., xiv, 217, 1906.

Culex elevator Howard, Dyar & Knab (in part), Mosq. No. & Cent. Am. & W. I., iii, 414, 1915.

Culex apateticus Howard, Dyar & Knab (in part), Mosq. No. & Cent. Am. & W. I., iii, 321, 1915.

Culex (Choeroporpa) elevator Dyar, Ins. Ins. Mens., vi, 106, 1918.

Clasp-filament narrowly snout-shaped, the spine appendiculate. Outer division of the lobe of the side-piece with a slender inner limb, bearing at its tip a long and a short filament, both flattened and blade-like; middle filament close to the three on outer aspect of lobe, all flattened and blade-like. Inner division of the lobe of side-piece with the two arms well separated, the outer long, the inner very short, each bearing a long filament with flattened and pointed tip. Second plate of the unci furcate, the stem short and rather thick, without third spine; inner limb elliptical, erect; outer limb at right angles, flattened, appearing spine-like in side view. Tip of first plate on a level with the outer limb of second; a sharp angle at the middle just above the excavation where the broad articulated plate is inserted. Basal hooks long, well curled. Basal appendages small, fan-shaped, contiguous, tubercular, each with about 10 setæ. The pecten on the harpes is fine and delicate.

Costa Rica and Panama, not received from other localities.

Culex (Choeroporpa) phlogistus, new species.

Clasp-filament rather thickly snout-shaped; dorsal pile short but abundant. Outer division of lobe of side-piece short, a little produced on the inner corner, bearing there two blade-shaped filaments, one of which (the outer) is only a little shorter than the other which is hooked at tip; middle filament strongly blade-shaped and long, closely followed by three broadened curved filaments on the outer aspect of the apex. Inner division of lobe of side piece with the arms separated, the outer rather short, the inner very short, each with a long curved filament with expanded tip, pointed on one side. Second plate of the unci furcate, one limb finely pilose, denticulate throughout on its inner surface, the other smooth; a long sharp spine arising at the base of the stem. First plate emarginate on the side for the insertion of the articulated plate, which is very distinct, large and broadly rounded, showing a point near the middle of its margin. Basal hooks fairly long and recurved, but somewhat broadened and gently curved, not sharply hooked at the end. Basal appendages large, elliptical, oblique, contiguous, each bearing very many setæ. Comb-teeth of the harpes fine and delicate.

The adult presents no distinguishing characters; bronzy brown mesonotum, elliptical flat white scales on the head; abdomen wholly black; legs without knee-spots; wing-scales narrowly ovate, becoming ligulate on the base of the third vein and on the fifth vein. Palpi of male longer than the proboscis, pointed.

Type, male, No. 22735, U. S. Nat. Mus.; "larvæ found in pools in the woods, May, 1919, interior of colony," Surinam (J. Bonne-Wepster).

Larva. Head large, broad, darkly infuscated; antennæ long, with a notch at the outer third, bearing a large tuft; infuscated, except the middle of the basal segment, which is whitish. Mental plate with a central tooth, four small ones and two larger ones on each side. Head hairs, upper small, in two or three, lower long, single. Air-tube slender, straight, some eight times as long as wide, pale, with a dark band at the

middle; pecten reaching one-third, of long spines, followed by six tufts along the posterior margin, being three pairs dislocated and pushed back; the upper two tufts are approximate, scarcely dislocated. Tracheæ slender, winding around in the tube. Lateral comb of the eighth segment of many spines in a patch, the posterior row larger. Skin pilose on front of thorax and end of anal segment, elsewhere smooth.

Culex (Choeroporpa) albinensis Bonne-Wepster & Bonne.

Culex (Choeroporpa) albinensis Bonne-Wepster & Bonne, Ins. Ins. Mens., vii, 173, 1919.

Clasp-filament slenderly snout-shaped, the spine long and slender, scarcely widened. Outer division of lobe of side-piece with a slender inner arm, from which arises a long and a short filament, the long one flattened and hooked at the tip, the short one blade-like; middle filament broadly blade-shaped, long; three filaments on the outer aspect of apex contiguous, curved, a little flattened. Inner division of lobe of side-piece with the outer arm short, the inner very short, not widely separated, each bearing a large filament with expanded pointed tip. Second uncal plate with the tip widely expanded, membranous, sharply serrate all along the edge, with a point at either end; a long spine below the middle of the stem. Articulated plate small, triangular, darkly chitinized. Basal hooks small, broad, not recurved. Basal appendages large, ovate, nearly twice as long as broad, with many rather long setæ.

From Surinam.

Culex (Choeroporpa) maroniensis Bonne-Wepster & Bonne.

Culex (Choeroporpa) maroniensis Bonne-Wepster & Bonne, Ins. Ins. Mens., vii, 175, 1919.

No slide of this is before me.

Culex (Choeroporpa) tecmarsis Dyar.

Culex (Choeroporpa) tecmarsis Dyar, Ins. Ins. Mens., vi, 124, 1918.

Clasp-filament slenderly snout-shaped, the spine widened and appendiculate. Outer division of the lobe of side-piece rather

small and tapering; at the summit a large and a small filament, the former hooked; middle filament long, close to the three outer filaments, all arranged on the oblique outer side of the stem. Inner division of lobe of side-piece with the arms well separated, the outer moderate, the inner short, each bearing a stout curved filament, the outer widened and pointed, the inner spatulate at tip. Second uncal plate furcate, shallowly emarginate, the inner limb pointed, the outer rounded, both short; a strong spine about the middle of the inner side of the stout stem. Articulated plate of unci large, infuscated, concave, with an emargination on one side of the apex. Basal hooks large and stout, long, bent sharply at outer third, the tips recurved. Basal appendages long and slender, the tips a little enlarged and bearing many stout setæ.

So far, received only from Panama.

Culex (Choeroporpa) phlabistus, new species.

Clasp-filament moderately snout-shaped, with dorsal crest of fine pile, spine appendiculate, little widened. Outer division of lobe of side-piece with rather long slender stem, with slender curved outer arm, bearing a small leaf, a widened rounded filament and a blade-like pointed filament; inner angle with a long filament with hooked tip and a widened ligulate round-tipped one, middle filament from a very strong insertion, but moderate only, blade-shaped. Inner division of lobe of side-piece with the arms separated, that is diverging at an angle, but the inner sessile on the outer, which is stout and moderate only, each with a large filament with widened hooked tip. Second uncal plate furcate, one limb sharp, the other denticulated at tip; stem long and slender, a stout hook near the base. First plate triangular-spatulate. Articulated plate large, infuscated, deeply emarginate at apex. Basal hooks long, curled. Basal lobes rather small, triangular and tubercular, with many fine setæ.

Adult with mesonotal scales small and hair-like, bronzy brown; head with a rather large area of narrow scales on vertex, flat white ones on the sides. Abdomen with basal seg-

mental white bands, widening on the sides. Legs dark, without knee spots. Wing scales rather broadly ovate, spinose along the costa.

Type, male, No. 22736, U. S. Nat. Mus.; "pupa in ground-pool, interior of colony, May, 1919," Surinam (J. Bonne-Wepster).

Culex (Choeroporpa) coppenamensis Bonne-Wepster & Bonne.

Culex (Choeroporpa) coppenamensis Bonne-Wepster & Bonne, Ins. Ins. Mens., vii, 173, 1919.

Clasp-filament moderately snout-shaped, the upper edge thickened and clear, with minute denticles toward tip, no pile; spine triangularly widened, appendiculate. Outer division of lobe of side-piece with a long slender outer arm, bearing a large expanded leaf; inner angle less than half as long as this arm, quadrate, bearing a long filament with hooked tip, a short one and a (middle filament) blade-like one; angle between the two divisions of the lobe spinous. Inner division stout, the arms not separated, the inner basad of the outer, each bearing a stout filament with expanded pointed tip. Second uncal plate short and wide, furcate, the pointed limb short, the rounded (outer) one longer; a curved horn adjacent to these, the three making a triangle. First plate trigonate, with pointed tip. Articulated plate large, expanded, infuscated, not emarginate, the margin being convex, fimbriated toward one angle. Basal hooks long, curved, spatulate at the ends. Basal appendages rather small, ovate, oblique, contiguous, setose.

From Surinam.

Culex (Choeroporpa) invocator Pazos.

Culex invocator Pazos, Anal. Acad. Cien. méd. fís. y nat. de la Habana, xix, 426, 1908.

Culex invocator Dyar & Knab, Smiths. Misc. Colls., quart. iss., lii, 258, 1909.

Culex invocator Pazos, San. y Ben., ii, 50, 1909.

Culex invocator Howard, Dyar & Knab, Mosq. N. & Cent. Am. & W. I., iii, 323, 1915.

Culex (Choeroporpa) invocator Dyar, Ins. Ins. Mens., vi, 105, 1918.

Clasp-filament narrowly snout-shaped, with a stout seta; spine widened and appendiculate. Outer division of lobe of side-piece with a short outer arm, bearing a large expanded leaf; inner angle with a broad blade-like filament with hooked tip, a small filament and a (middle) narrowly blade-like one. Inner division with the arms separated, inner one short, each bearing a stout filament with expanded hooked tip. Second uncal plate short and broad, furcate, the limbs short, pointed and equal, a stout hook near them, the three forming a triangle. First plate triangularly spatulate. Articulated plate large, rounded, infuscated, one angle produced inward and roughened. Basal hooks long, curved, sharply pointed. Basal appendages large, elliptical, oblique, approximate, with many long setæ.

This Cuban species is allied to *coppenamensis* B.-W. & B. of the South American mainland.

Culex (Choeroporpa) corentynensis, new species.

Clasp-filament thickly snout-shaped, the spine appendiculate, not much widened. Outer division of the lobe of the side-piece with a slender inner arm, bearing a large filament with hooked tip and a small filament; from the base of the stem toward the inner side a triangularly widened ribbed leaf, apparently representing the middle filament, but placed basad of its usual position; outer angle with three approximate curved filaments. Inner division with the limbs separate, equal, both short and bearing stout filaments with widened pointed tips. Second uncal plate furcate, one limb smooth and slender, the other (inner) coarsely denticulate; a stout horn near the tip, the three forming a triangle. First plate trigonate with pointed tip; a horn at the insertion of articulated plate. Articulated plate large, rounded triangular, fimbriate on one angle. Basal hooks rudimentary. Basal appendages elliptical, small, rather remote, with few hairs.

The adult has small oval white scales on the sides of head, small bronzy brown scales on mesonotum, abdomen entirely black, legs without knee-spots. Wing-scales narrowly ovate, becoming ligulate on base of third and fifth vein.

Type, No. 22737, U. S. Nat. Mus., two males; Surinam, "pupæ found in ground pools, January 12, 1919" (J. Bonne-Wepster).

Dr. and Mrs. Bonne attached the name *corentynensis* to the specimens, but did not include this among their described species.

Culex (Choeroporpa) mutator Dyar & Knab.

Culex mutator Dyar & Knab, Journ. N. Y. Ent. Soc., xiv, 207, 1906.

Culex mutator Dyar, Proc. Ent. Soc. Wash., viii, 17, 1906.

Culex mutator Howard, Dyar & Knab, Mosq. No. & Cent. Am. & W. I., ii, plate 108, fig. 361, 1912.

Culex mutator Howard, Dyar & Knab, Mosq. No. & Cent. Am. & W. I., iii, 422, 1915.

Culex (Choeroporpa) mutator Dyar, Ins. Ins. Mens., vi, 105, 1918.

Clasp-filament narrowly snout-shaped, the spine widened and appendiculate; pile short and scanty, anteriorly situated. Outer division of the lobe of the side-piece columnar, widened at tip, with a short inner arm, bearing a long filament with hooked tip, and a short blade-like one, arising from the base of the arm; middle filament developed into a large, broadly expanded leaf, as long as any of the filaments; three filaments on the outer aspect of apex of lobe, small and blade-like. Inner division of lobe of side-piece with the arms well separated, outer long and curved, inner rather long, each bearing a long curved filament with expanded pointed tip. Second uncal plate bifid, both limbs pointed; a curved horn from the stem near the tip, the three forming a triangle. Articulated plate large, oval, rounded on the margin. Basal hooks long and recurved, but broadened and with spatulate tips. Basal appendages large, elliptical, oblique, contiguous, with many short setæ. The teeth of the harpes seem to be delicate, but strong toward apex. This may be due to the position of the parts in the single mount.

From Cordoba, Mexico.

Culex (Choeroporpa) leprincei Dyar & Knab.

Culex leprincei Dyar & Knab, Journ. N. Y. Ent. Soc., xv, 202, 1907.

- Culex leprincei* Busck, Smith. Misc. Colls., quart. iss., lii, 67, 1908.
Culex trachycampa Dyar & Knab, Can. Ent., xli, 101, 1909.
Culex leprincei Howard, Dyar & Knab, Mosq. No. & Cent. Am. & W. I., ii, plate 106, fig. 353, 1912.
Culex trachycampa Howard, Dyar & Knab, l. c., ii, plate 108, fig. 363, 1912.
Culex leprincei Howard, Dyar & Knab, l. c., iii, 397, 1915.
Culex trachycampa Howard, Dyar & Knab, l. c., iii, 329, 1915.
Culex (Choeroporpa) leprincei Dyar, Ins. Ins. Mens., vi, 105, 1918.

The genitalia are almost exactly like those of *mutator*. The teeth of the harpes are stout and strong, from 7 to 10 in number. The setæ on the basal appendages are distinctly longer, being rather long as opposed to short. The basal hooks are regularly recurved, not much widened and with pointed tips. The differences, however, are so inconsiderable that I would be inclined to overlook them, except that the larvæ differ rather conspicuously, as can be seen from comparison of the figures quoted. The difference in the head-hairs cannot be unimportant.

The species is rather common in Panama.

***Culex (Choeroporpa) peribleptus* Dyar & Knab.**

- Culex (Mochlostyrax) peribleptus* Dyar & Knab, Ins. Ins. Mens., v, 181, 1917.
Culex (Mochlostyrax) peribleptus Dyar, Ins. Ins. Mens., vi, 108, 1918.
Culex (Choeroporpa) peribleptus Dyar, Ins. Ins. Mens., vii, 161, 1919.

Clasp-filament narrowly snout-shaped, a crest of very short pile running to tip; spine widened and appendiculate. Outer division of the lobe of the side-piece slenderly columnar, widened at tip; a short inner arm bearing a long filament with hooked tip and a small delicate one; middle filament broadly blade-shaped, long; on the outer aspect of the tip, a large broadly expanded leaf and two blade-like filaments, not as long as the leaf. Inner division of lobe of side-piece with the arms well separated, the outer long, the inner short, each bearing a long stout filament with curled hooked tip. Second plate of unci furcate, each limb pointed; a curved horn arising

some distance below the apex. Articulated plate triangularly widened, the outer margin entire. Basal hooks long and recurved, somewhat broadened, but with pointed tips. Basal appendages large, obliquely quadrate, setose, the setæ toward the produced outer angle longer.

Southeastern United States.

Culex (Choeroporpa) moorei Dyar.

Culex (Mochlostyrax) moorei Dyar, Ins. Ins. Mens., vi, 108, 1918.

Clasp-filament with the outer part broadly elliptical, the tip drawn out into a horn on which the narrow appendiculate spine lies; a dorsal crest of very short pile. Outer division of lobe of side-piece rather shortly columnar, without arm, a large broadly expanded leaf on the inner angle, accompanied by a small filament; middle filament also forming a leaf, more delicate than, but almost as large as the inner one; three filaments on the outer aspect of the lobe toward tip. Inner division of lobe of side-piece with the arms well separated, the outer rather long, the inner nearly half as long as it, each bearing a stout filament with expanded hooked tip. Second uncal plate stout, furcate, one limb (inner) pointed, the other more rounded; a stout curved horn from about the middle of the stem. Articulated plate expanded trigonate, infuscated, the margin smooth. Basal hooks moderately long, stout and widened, but recurved and with pointed tips. Basal appendages large, produced, being three times as long as wide, indicating the development of *tecmaris*, though by no means so extreme, with many setæ, those toward the tip longer.

From British Guiana. I described this in *Mochlostyrax* on account of the shape of the clasp-filament; but the uncal plates are not formed as in that subgenus, being quite characteristic of *Choeroporpa*. I therefore transfer the position. The larva is not at hand to confirm or disprove the reference.

Culex (Choeroporpa) bastagarius Dyar & Knab.

Culex bastagarius Dyar & Knab, Proc. Biol. Soc. Wash., xix, 170, 1906.

Culex bastagarius Howard, Dyar & Knab, Mosq. No. & Cent. Am. & W. I., iii, 424, 1915.

Culex (Choeroporpa) bastagarius Dyar, Ins. Ins. Mens., vi, 105, 1918.

Clasp-filament rather narrowly snout-shaped, the spine widened and appendiculate. Outer division of lobe of side-piece short, with a short stout inner arm, bearing a long filament with hooked tip and a small filament; middle filament broadly blade-like; two outer filaments and a small oval leaf, the leaf having a very large insertion, although small. Inner division of lobe single, forming a broad common pedicel, one filament inserted basally of the other, long, strong, with widened pointed tips. Second uncal plate widely furcate, both limbs short and pointed; a stout horn with them, making a three-pointed tip. First plate with a horn-like projection at insertion of articulated plate. Articulated plate triangularly widened, broadly emarginate at tip. Basal hooks very short, stout, curved, with bluntly pointed tips. Basal appendages moderate, elliptical, approximate, setose, with rather long hairs.

From Trinidad.

***Culex (Choeroporpa) vapulans*, new species.**

Genitalic characters indistinguishable from *bastagarius*, except that the basal hooks are rather long, recurving to the middle of stem of second plate, with strongly hooked tips.

The adult does not differ from the description of *bastagarius*.

Types, two males, No. 22738, U. S. Nat. Mus.; "larvæ in a pool near Paramaribo," Surinam (J. Bonne-Wepster).

***Culex (Choeroporpa) carcinophilus* Dyar & Knab.**

Culex carcinophilus Dyar & Knab, Journ. N. Y. Ent. Soc., xiv, 207, 1906.

Culex carcinophilus Howard, Dyar & Knab, Mosq. No. & Cent. Am. & W. I., ii, plate 12, fig. 85, plate 109, fig. 368, 1912; iii, 412, 1915.

Culex (Choeroporpa) carcinophilus Dyar, Ins. Ins. Mens., vi, 105, 1918.

Clasp-filament rather narrowly snout-shaped, roundedly prominent dorsally, the pile more distinct on the prominence; spine very small, appendiculate. Outer division of the lobe of the side-piece oblique outwardly, the inner angle continued as

a short arm, bearing a long filament with hooked tip and a small filament; middle filament distinct, blade-shaped, approximated to the outer group of filaments, which consist of a small filament, a broad one with spatulately expanded tip, and a rather small leaf, the latter elliptical, pointed, and arising from a very large insertion. Inner division of the lobe of side-piece with both arms short, the inner shorter, well separated, each with a long curved filament with enlarged pointed tip. Second uncal plate furcate, both limbs pointed, a stout horn near the tip. Articulated plate broadly expanded, the outer margin rounded, with a point on one corner. Basal hooks long, recurved, pointed at tip. Basal appendages large, elliptical, oblique, with many small setæ.

From Santo Domingo.

Culex (Choeroporpa) comminutor, new species.

Clasp-filament rather narrowly snout-shaped, the spine appendiculate. Outer division of lobe of side-piece slenderly columnar, with a short inner arm, bearing a long filament with hooked tip and a short blade-shaped one; middle filament blade-shaped, and a little basad of its insertion is a triangularly expanded leaf, not as long as the filaments; two blade-like filaments and one round-tipped one on the outer aspect of the lobe. Inner division of lobe of side-piece with the arms well separated, the outer rather long, the inner short, each bearing a stout filament with widened pointed tip. Second uncal plate with long slender stem, the tip furcate, inner arm horn-like, outer with bluntly triangular point; below the middle of the stem, a very large horn-like spine. Articulated plate small, triangularly widened. Basal hooks long, recurved, but rather stout, the points in the mount, only reaching back to the origin. Basal appendages of good size, but triangularly expanded and tubercular as if in process of reduction; setæ numerous, small.

Adult with mesonotum bronzy brown scaled, the abdomen with white basal segmental bands. Wing-scales rather broadly ovate. Legs bronzy black.

Type, male, No. 22739, U. S. Nat. Mus.; "larvæ in pool,

interior of the colony, May, 1919," Surinam (J. Bonne-Wepster).

Culex (Choeroporpa) eastor, new species.

Clasp-filament broadly snout-like, the spine widened and appendiculate. Outer division of lobe of side-piece columnar, long, with a blunt tip without arms; on the inner angle a long filament with hooked tip and a short filament; middle filament blade-like; on the outer angle and a little down the side, a short leaf with fluted edge, and two small setæ. Inner division of lobe of side-piece conical, without arms, one filament at the tip and one on the side, each with flattened pointed tip. Second uncal plate with furcation laterally directed, the horn on a level with the lower fork. First plate with a spine at the insertion of the articulated plate, the latter broadly expanded. Basal lobes contiguous, moderate, broadly elliptical, oblique, tubercular, with short setæ.

Adult with mesonotum bronzy brown, abdomen entirely bronzy black. Palpi exceeding proboscis, pointed. Legs black, femora pale below. Wing-scales broadly ligulate, rather squarely ended. Head with white scales on the sides.

Type, male, No. 22740, U. S. Nat. Mus.; "pupa in swamp, coastal region, February, 1917," Surinam (J. Bonne-Wepster).

Culex (Choeroporpa) maxinocca, new species.

Clasp-filament rather thickly snout-shaped, the spine slender, appendiculate. Outer division of lobe of side-piece columnar, with a rather long inner arm, bearing a long filament with hooked tip and a shorter blade-shaped one; middle filament long, blade-shaped, arising near the middle of the inner arm, a minute seta inserted just basad of it; outer group of four blade-shaped curved filaments from a notch at outer angle of the lobe. Inner division of the lobe of side-piece with the arms well separated, the outer long, the inner short, each with a long stout filament with widened pointed tip. Second plate of the unci furcate, one arm horn-like, the other rounded; a stout horn-like spine arising near the base of the stem. Articulated plate large, infuscated, roundedly widened, with an exca-

vation on the margin. Basal hooks long and well curled, but membranously broadened, though with short tip. Basal appendages moderate, oblique, rather well separated, with many fine short setæ. Harpes with about seven teeth.

The adult has the head and mesonotum with dark bronzy brown scales, palpi longer than the proboscis, pointed, black; abdomen with narrow basal segmental white abdominal bands; wing-scales rather broadly ligulate with rounded ends; legs bronzy black, the femora paler beneath.

Types, four males, No. 22741, U. S. Nat. Mus.; "larvæ in ground pool in the interior of the colony, May, 1919," Surinam (J. Bonne-Wepster).

Larva. Head broadly rounded, antennæ long, the latter entirely dark; head lightly infuscated, darkly at top of clypeus and behind eyes. Head hairs, upper in fours, rather long, lower single, long. Air-tube long, flared at base and a little at tip, about eight times the basal width; pecten of short teeth, reaching one-third, the apical ones distantly spaced; hair-tufts very small and slight, three tufts, approximated to the posterior margin of the tube, the two basal ones well dislocated, the apical pair approximate, each with four or five short hairs. Latéral comb of the eighth segment of many small equal spines in a patch, three rows deep, the single spines with widened, fringed tips. Skin minutely spicular, the spicules longer at the extremities, but not forming pile.

Culex (Choeroporpa) tosimus, new species.

Clasp-filament broadly snout-shaped, the spine widened and appendiculate. Divisions of the lobe of the side-piece as in *maxinocca* described above. Second uncal plate also as in *maxinocca*, the articulated plate with rather narrow stem, then roundedly expanded at apex. Basal hooks very short, curved, but not to reach their own origin, the point sharp. The harpes have fine delicate pecten, about ten teeth, the apical tooth strong.

The adult is without head; the mesonotum, abdomen and wing-scales as in *maxinocca*.

Type, male, No. 22742, U. S. Nat. Mus.; "larvæ in pool in the woods, interior of the colony, December 18, 1918," Surinam (J. Bonne-Wepster).

The larva is as in *maxinocca*, although as the head hairs and antennæ are lost, it is possible that they show differences.

Culex (Choeroporpa) vaxus, new species.

Clasp-filament narrowly snout-shaped, the spine appendiculate. Outer division of the lobe of the side-piece columnar, with a slender inner arm, bearing a long filament with hooked tip and a short blade-shaped filament; middle filament blade-shaped, arising near the outer group of filaments; a slender spatulately expanded filament inserted close to it and a little basad. Outer filaments curved, blade-shaped. Inner division of lobe of side-piece with the arms well separated, the outer long, the inner short, each with a long strong filament with expanded pointed tip. Second uncal plate furcate, the inner limb denticulate, the outer one smooth; a large very stout curved horn arising about the middle of the stem. Articulated plate large, expanded, with excavate margin, infuscated. Basal hooks long, slender, strongly recurved, and with pointed tips. Basal appendages moderate, slightly separated, oblique, elliptical, with small setæ.

The adult has the head with many white scales, mesonotum bronzy brown, abdomen black with rather broad basal segmental white bands. Legs black, the knees pale. Wing-scales rather narrowly ovate.

Types, three males, No. 22743, U. S. Nat. Mus.; (type) "larva in a ditch, interior of colony, January 18, 1919," Surinam (J. Bonne-Wepster); "pupa found in a swamp, Lawa River, March 5, 1917," Surinam (J. Bonne-Wepster).

The larva has the head broad, lightly infuscated; antennæ large, with notch and tuft at outer third, infuscated at base and on both sides of the tuft; both head-hairs single. Skin spicular on thorax and end of anal segment. Lateral comb of the eighth segment of small spines in four rows, the posterior ones only slightly larger, some 30 spines in the patch.

Air-tube straight, slender, not flared at base, some ten times as long as wide; pecten reaching one-third, the teeth moderate, the outer ones somewhat longer; five pairs of rather small hair-tufts along the posterior margin, approximate, slightly dislocated. Tracheæ narrow and curving about in the tube.

Closely allied in both genitalia and larva to *educator* Dyar & Knab from Central America. It may be only a geographical form of *educator*.

Culex (Choeroporpa) educator Dyar & Knab.

Culex educator Dyar & Knab, Journ. N. Y. Ent. Soc., xiv, 217, 1906.

Culex elevator Howard, Dyar & Knab (in part), Mosq. N. & Cent. Am. & W. I., iii, 414, 1915.

Culex apateticus Howard, Dyar & Knab (in part), Mosq. No. & Cent. Am. & W. I., iii, 321, 1915.

Culex (Choeroporpa) educator Dyar, Ins. Ins. Mens., vi, 105, 1918.

The genitalia are as just described for *vaxus*, with the single exception of the absence of the expanded filament adjacent to the middle filament of the outer division of lobe of side-piece. If present at all, it is minute and setiform.

Described from Costa Rica, and apparently the commonest *Choeroporpa* in Panama.

Culex (Choeroporpa) bibulus, new species.

Clasp-filament thick, but narrowly snout-shaped, the spine appendiculate. Outer division of the lobe of the side-piece columnar, with a short inner arm, bearing a long hooked filament and a short one; middle filament blade-shaped, accompanied by a slender round-tipped filament; outer group of three filaments curved and blade-shaped. Inner division of the lobe of side-piece with the arms well separated, the outer long, the inner very short, each with a long filament with expanded pointed tip. Second uncal plate furcate, the inner limb denticulate, the outer smooth; a very large curved horn, arising from the stem just at the base of the furcation. Articulated plate triangularly expanded, excavated at outer margin. Basal hooks long, strongly recurved, pointed. Basal ap-

pendages rather small, elliptical, oblique, shortly setose, rather narrowly separated.

The adult has some white scales on the sides of the head, mesonotum with bright bronzy brown scales, abdomen with white basal segmental bands. Legs dark brown, the knees pale. Wing-scales ovate, but not very broadly so. Male palpi longer than the proboscis, pointed.

Type, male, No. 22744, U. S. Nat. Mus.; "larvæ in ground-pool, interior of colony, January 24, 1919,"⁸ Surinam (J. Bonne-Wepster).

Larva. Head wider than long, rounded; head hairs, the upper in twos, delicate, the lower long and single. Skin spicular-pilose, showing strongly on thorax and on sixth to ninth segments. Lateral comb of the eighth segment of rather few large pointed-tipped scales in a triangular patch, the patch about three rows deep and the scales all alike in size. Anal segment spicular-pilose on posterior margin. Air-tube straight, rather short, tapered a little gradually outwardly, about six times the basal width; pecten reaching over one-third, but of few teeth, the outer ones gradually longer; five pairs of posterior hair-tufts, approximated along the posterior margin, but not dislocated, distinctly long, decreasing in length outwardly.

Culex (Choeroporpa) iolambdis Dyar.

Culex (Choeroporpa) iolambdis Dyar, Ins. Ins. Mens., vi, 106, 1918.

Clasp-filament narrowly snout-shaped. Outer division of lobe of side-piece rather shortly columnar, with a slender inner arm bearing a long filament with hooked tip and a short blade-shaped one; middle filament blade-shaped, a small seta inserted below it; outer group of three filaments curved and blade-shaped. Inner division of lobe with the arms not separated, the outer longer than the inner, each with the usual filament. Second uncal plate furcate, the inner limb denticulate, the outer smooth; a small horn on the stem just at the fork. Articulated plate expanded, straight on the margin, infuscated. Basal hooks rather long, recurved, somewhat flattened, but with

sharp tips. Basal appendages small, separate, trigonate, with about 15 short setæ arising from conspicuous tubercles.

From Panama. I still have only the unique type.

Culex (Choeroporpa) inhibitor Dyar & Knab.

Culex inhibitor Dyar & Knab, Journ. N. Y. Ent. Soc., xiv, 207, 1906.

Culex inhibitor Dyar, Proc. Ent. Soc. Wash., viii, 17, 1906.

Culex inhibitor Howard, Dyar & Knab, Mosq. No. & Cent. Am. & W. I., iii, 391, 1915.

Culex (Choeroporpa) inhibitor Dyar, Ins. Ins. Mens., vi, 105, 1918.

Clasp-filament mediumly broad, snout-shaped, the spine widened and appendiculate. Outer division of the lobe of side-piece columnar, rather short, the inner angle scarcely produced, bearing a long hooked filament and a shorter blade-shaped one; middle filament broadly blade-shaped, large; of the outer group of filaments, one has a very large insertion as if to support a leaf, but I cannot see that such a structure is present, the filament arising from this insertion seems stout, but about the length of the other outer ones. Inner division of lobe of side-piece with the arms separated, the outer not over twice as long as the inner, which is a little longer than broad. Second uncal plate badly distorted in the mount, apparently furcate, one limb pointed, the other smooth, with a small horn at the fork. Basal hooks long, recurved, flattened, but with pointed tips. Basal appendages rather large, oblique, elliptical, with rather long fine setæ, about 30 in number.

From Santo Domingo.

Culex (Choeroporpa) jonistes, new species.

Clasp-filament very broadly snout-shaped, the spine appendiculate. Outer division of the lobe of side-piece columnar, the inner filament arising near the base and lying along the column, hooked at tip; short accompanying filament inserted toward apex of column, blade-like; middle filament inserted near the tip of the column, the three outer ones on the summit, which curves outward a little. Inner division of lobe of side-piece single, the inner filament inserted a little basally of the

outer, each with stout filament with expanded pointed tip. Second uncal plate furcate, the inner limb horn-like, the outer slender, smooth, laterally directed; a slender curved horn arising from the base of the inner limb. Articulated plate large, trigonate, deeply emarginate outwardly. Plates at bases of side-pieces also present, distinct, moderate, infuscated. Basal appendages moderate, contiguous, oblique, with rather long fine setæ.

The adult has some white scales on the sides of the head, mesonotum with bright bronzy brown scales, abdomen with basal segmental white bands, narrow at the base, broader outwardly. Legs brown, knees narrowly pale. Wing-scales on the forks of the second vein moderately ovate.

Type, male, No. 22745, U. S. Nat. Mus.; "larvæ in a ditch, interior of the colony, January, 1919," Surinam (J. Bonne-Wepster).

Culex (Choeroporpa) idottus, new species.

Clasp-filament narrowly snout-shaped, the spine appendiculate. Outer division of lobe of side-piece short; a short inner arm, bearing a long filament with hooked tip and a shorter blade-shaped one; middle filament and the outer group of three, approximate, almost sessile on the short column, the lower outer one large and quadrately hooked, the articulation subpedicellate and a little on one side. Inner division of lobe of side-piece with the arms not separated, the inner about half as long as the outer, each with a long crooked filament with expanded pointed tip. Second uncal plate furcate, the inner limb horn-like, the outer smooth, laterally directed; a large curved horn continuing the inner arm obliquely toward base. Articulated plate large, trigonate, infuscated. Basal hooks long, recurved, with pointed tips. Basal appendages rather large and long-elliptical, separated, oblique, with many rather long fine setæ.

The adult has the mesonotum bronzy brown, head with white lateral scales; legs dark brown, without knee-spots, the femora whitish below. Wing scales narrowly ovate, widest on forks of second vein.

Type, male, No. 22746, U. S. Nat. Mus.; "larvæ in a ditch, interior of colony, January, 1919," Surinam (J. Bonne-Wepster).

Culex (Choeroporpa) xivyilis, new species.

Clasp-filament with the tip moderate, snout-shaped, the spine appendiculate. Outer division of lobe of side-piece short, a short broad inner arm, bearing a long hooked filament and a shorter blade-shaped one; middle filament and the three outer ones all close together and occupying the outer aspect of the lobe, reaching the base on account of the shortness of the lobe. Inner division of lobe of side-piece with the arms not separated, the inner about half as long as the outer, each with a long filament with bent hooked tip. Second uncal plate furcate, the inner limb horn-like, the outer pointed, laterally directed; a hook-like plate projecting from the base of the inner limb. First plate long and fan-shaped. Articulated plate very large, trigonate and deeply excavate at tip, infuscated. Plates at bases of side-pieces distinct, large, infuscated. Basal hooks long, recurved, pointed. Basal appendages moderate, elliptical, oblique, remote, setose.

The adult has the head scales partly whitish, mesonotum bright bronzy brown, abdomen black, with basal segmental narrow white bands. Legs blackish brown. Male palpi longer than the proboscis, pointed. Wing-scales moderately ovate on forks of second vein.

Types, four males, No. 22747, U. S. Nat. Mus.; (type) "larva in ground pool, interior of colony, January 24, 1919," Surinam (J. Bonne-Wepster); "pupa in rice field, coastal region, February, 1917," Surinam; "sandy district of colony, larvæ in pools," Surinam (J. Bonne-Wepster).

Larva. Head broad, rounded, cloudily infuscated; antennæ large, with a notch and large tuft at outer third, the base and all of the outer segment infuscated. Head-hairs both single, the upper delicate. Skin finely pilose on thorax and on end of anal segment. Lateral comb of the eighth segment of many small spines with widened tips in a triangulate patch four rows

deep, the posterior scales a little larger. Air-tube moderate, gently tapered, the pecten to about one-third, the outer teeth a little longer, tube about eight times as long as wide at base. Five pairs of hairs tufts along posterior margin, much dislocated, short and fine, decreasing in length toward apex.

The following genitalic table will separate the species here noticed.

1. Inner division of lobe of side-piece single, with two distorted appendages and a thin membrane.....*taeniopus* Dyar & Knab
Not so formed, the two filaments more or less separated..... 2
2. Clasp-filament with a horn-like tuft before tip; terminal spine uniform 3
Without this structure, the terminal spine generally widened and appendiculate 5
3. Anterior crest of clasp of appressed or consolidated spines..... 4
This crest composed of fine hairs.....*anips* Dyar
4. Terminal spine of clasp stout; anterior crest solid,
erraticus Dyar & Knab
This spine delicate; anterior crest of compressed spines,
peccator Dyar & Knab
5. Second plate of unci without a third point..... 6
This plate with a third point on stem or subapically..... 12
6. This plate simple with furcate tip..... 7
This plate with a triangular membrane from one limb, crossing the other and bent down.....*terebor* Dyar
7. Outer division of lobe of side-piece with a long filament from the base 8
Without this structure..... 9
8. Filaments at apex of this lobe triangularly leaf-like.. *ybarmis* Dyar
A large triangular leaf and several long setæ,
alcocci Bonne-Wepster & Bonne
9. Outer division of lobe of side-piece with a leaf-like appendage.. 10
Without this structure..... 11
10. This lobe with a slender inner arm, the leaf from the base of this, ribbed.....*conspirator* Dyar & Knab
This arm short; leaf large, triangular, arising from among the outer group of setæ.....*nicceriensis* Bonne-Wepster & Bonne
11. One limb of the second uncal plate denticulate,
saramacensis Bonne-Wepster & Bonne
Both limbs of this plate smooth.....*elevator* Dyar & Knab
12. Second uncal plate serrate on the margin between the limbs.... 13
Without serrations between the limbs..... 15

13. Serration of second uncal plate slight; third spine basal on the stem.....*phlogistus* Dyar
Serration extensive; third spine subapical..... 14
14. A horn-like point on the serrated area between the outer limb and third spine.....*maroniensis* Bonne-Wepster & Bonne
Without this structure.....*albinensis* Bonne-Wepster & Bonne
15. Basal lobes long, finger-shaped, hairy at the end....*tecmarsis* Dyar
Basal lobes broad and rounded..... 16
16. Outer division of lobe of side-piece with a slender *outer* limb bearing a leaf..... 17
This part with an *inner* slender arm or none..... 19
17. Leaf-like appendage solitary, large..... 18
Leaf small, with accompanying filaments.....*phlabistus* Dyar
18. Inner division of lobe of side-piece spinose at basal outer angle,
coppenamensis Bonne-Wepster & Bonne
This part pilose only; leaf-arm shorter.....*invocator* Pazos
19. A slender-stemmed ribbed leaf arising from base of inner limb of outer lobe of side-piece.....*corentynensis* Dyar
Without this structure..... 20
20. A leaf-like appendage arising from the outer group of setae of the outer division of lobe of side-piece, or from between these and the inner limb..... 21
Without a leaf-like appendage on outer division of lobe of side-piece 28
21. Leaf large, expanded, exceeding the filaments..... 22
Leaf medium or small, shorter than the filaments..... 24
22. Third spine of second uncal plate subapical,
mutator Dyar & Knab, *leprincei* Dyar & Knab
This spine medial on the stem; leaf from outer setal group..... 23
23. Clasp-filament narrowly snout-like.....*peribleptus* Dyar & Knab
Clasp-filament broad, *Mochlostyrax*-like.....*moorei* Dyar
24. Outer division of lobe of side-piece with a distinct inner limb... 25
Inner limb, if present, very short..... 27
25. Leaf-like appendage arising between the limb and group of setae. 26
Leaf larger, accompanied by an expanded truncate filament, arising on stem of lobe.....*carcinophilus* Dyar & Knab
26. Basal hooks short.....*bastagarius* Dyar & Knab
Basal hooks long.....*vapulans* Dyar
27. A large leaf arising between the group of setae and middle filament.....*comminutor* Dyar
A short fan-like leaf absorbing the short filaments.....*eastor* Dyar
28. Third spine of second uncal plate almost basal on the stem.... 29
This spine very stout, about the middle of stem..... 31
This spine near the tip, with the other limbs..... 32

29. Basal hooks long, broad, curled..... 30
 Basal hooks very short.....*tosimus* Dyar
30. Outer division of lobe of side-piece with the middle filament remote
 from the outer group.....*maxinocca* Dyar
 Middle filament and outer group approximate,
chrysonotum Dyar & Knab
31. Filament adjacent to middle filament of outer lobe of side-piece
 not widened, minute.....*educator* Dyar & Knab
 This filament widened-spatulate or narrowly leaf-like..*vaxus* Dyar
32. Second uncal plate with the inner arm dentate, the outer smooth;
 third horn just below the furcation..... 33
 Second uncal plate with the three points in a triangle, none
 dentate 34
33. Horn of second plate very large; middle filament of outer division
 of lobe of side-piece with a large insertion.....*bibulus* Dyar
 This horn small; middle filament without large insertion,
iolambda Dyar
34. Inner division of lobe of side-piece with the arms separated,
inhibitor Dyar & Knab
 These arms not separated, parallel on a common stem..... 35
35. Outer division of lobe of side-piece long, with inner filament in-
 serted close to base, leaving the outer group of setæ on an
 arm.....*jonistes* Dyar
 This division short, with an inner arm..... 36
36. A long, squarely hooked filament from base near side of outer group
 of filaments of outer division of lobe of side-piece..*idottus* Dyar
 Without this structure.....*xivylis* Dyar

A NEW MOSQUITO FROM MEXICO

(*Diptera, Culicidæ*)

By HARRISON G. DYAR

Aedes (*Heteronycha*) *muelleri*, new species.

Proboscis and palpi black; legs black, the basal portion of femora broadly white below, running narrowly nearly to tip; knee-spots white. Head and mesonotum light yellow scaled, the latter with two moderately broad dark brown bands, running back narrowly to the scutellum, and short narrow side stripes posteriorly. Abdomen black scaled, with basal, segmental, triangular, white, lateral patches in the female, becoming basal bands in the male; venter pale scaled, with a medio-